

however, that very simple models of suitable shape or colour can be used to evoke elaborate responses: the male three-spined stickleback will try to mate with a small cigar-shaped object with a red "belly", and the herring gull chick will attempt to take food from a flat cardboard model of a gull's head marked with a red spot. The innate character of such responses has been shown in a small number of closely studied animals—for example the male stickleback which, raised in isolation, courts and fights normally.

It is suggested that much of the elaborate signalling behaviour of vertebrates has evolved from two sources. First are the displacement responses: these are given no clear definition by Dr. Tinbergen, but may be characterised as inappropriate responses to a particular situation; they are sometimes regarded as a product of excessive nervous energy or excitation which cannot be discharged in a normal way. Thus a bird whose mate suddenly flies off during courtship may resort to "displacement preening". Later, it is held, in the course of evolution, the preening itself has come in some species to form a standard part of the courtship ceremony. Similarly, the threat posture of a stickleback is interpreted as "displacement sand digging".

The second source of signal movements is the "intention movement"—for instance the bobbing of the head made by ducks or geese before they finally fly off. These movements themselves, it is held, may act as signals, or they may evolve into formal patterns with a different function. It will be seen that the more elaborate parts of the scheme involve a subjective element, and critical readers will certainly find some passages very condensed and, as they stand, not wholly convincing. For example:

The upright threat posture of a Herring Gull certainly signifies a rather strong tendency to attack. It does not easily develop into real attack because it is inhibited by a simultaneous tendency to flee or withdraw.

Although the subtitle is "with special reference to vertebrates", the examples are nearly all from fishes, birds or insects. Corresponding to the omission of the mam-

mals, there is rather little discussion of learned or adaptive behaviour, though the need for more research on it is recognised. There is no discussion of the relationship between "learning" and "instinct", nor of the neurological basis of social behaviour. This is a pity, but to include them would no doubt have required a longer book. The need for more neurological research, as well as discussion, is seen in the use of terms such as "drive", "urge" and "instinct", all of them without definition.

In view of current psychiatric interest in the work of ethologists, we may ask whether the observations described have any implications for human behaviour. The most obvious conclusion is the profound gulf between ourselves and most animals. As Dr. Tinbergen says:

Except perhaps in the highest mammals, all signalling behaviour is immediate reaction to internal and external stimuli. In this respect there is a great difference between animals and man.

Nevertheless, as a lucid presentation of some recent results of the objective study of animal psychology, this book can be recommended to all students of behaviour.

S. A. BARNETT.

FAMILY PLANNING

Third International Conference on Planned Parenthood: Report of the Proceedings, November 24th-29th, 1952, Bombay, India. Bombay, 1953. F.P.A. of India. Pp. xxxiv + 247. Price 10s. 6d.

At the invitation of the Family Planning Association of India the third international conference of the International Committee on Planned Parenthood was held in Bombay last November. This conference was sponsored by many distinguished persons, of different nationalities and the fact that the inaugural ceremony included an address from Dr. S. Radhakrishnan, Vice-President of India, is an indication of the importance attached to it by the Government of India.

The report of the proceedings of this

conference is a considerable document. It includes some thirty-seven papers submitted or read by individual experts on population problems, family planning in its general and technical aspects, infertility, sterilization, induced abortion, sex education and marriage counselling. Four study groups and representatives from various countries submitted reports which were read during the conference. Within the compass of a review it is impossible to do more than outline the range and scope of these papers, which present a nice admixture of the speculative and the factual, the historical and the predictive.

With characteristic clarity and vigour Dr. C. P. Blacker discusses the control of fertility in human cultures. He points out that mankind has always been concerned to increase both his food supply and his numbers but has from time to time adopted meiodemic practices without always recognizing them as such: human sacrifice, mutilation, religious continence and chastity and, lastly, contraception.

There follows a realistic paper on world population problems entitled "How many people?" by Professor Pascal K. Whelpton, who reminds us that the population which any particular territory—and, indeed, the world—can support depends ultimately on the number of births and deaths and the food that can be made available. He reminds us further that, despite optimistic pronouncements to the contrary, modern scientific methods of agriculture cannot as yet keep pace with the food requirements of an increasing world population. This important point is underlined by Dr. G. C. L. Bertram in a paper stressing the inevitability of limitation of population, and a similar conclusion is reached independently in papers by Mr. William Vogt, Major-General S. S. Sokhey, Dr. Frank H. Hankins and Dr. Elmer Pendell.

Dr. Margaret Sanger, who has written a foreword to this report, also contributes a forthright paper on the humanity of family planning in which she enunciates certain basic principles of planned parenthood and propounds the view that "family limitation

is the intelligent approach to problems of housing, of marriage, of medical care, of high taxes . . . and of the problem of war and peace."

In this section the case for birth control is clearly, if dogmatically, stated by Dr. Oscar Forel and there are interesting papers on the particular problems of family planning for various communities by Dr. K. C. K. Raja of the Ministry of Health of India, by Dr. S. Chandrasekhar of the University of Baroda, by Dr. C. Chandrasekharan of New Delhi and by Major-General A. N. Sharma of the Indian Army. Mention must also be made of Dr. Lewis C. Walmsley's enlightening contribution on the changing position of women in China.

In 1951 the Government of India invited a specialist from the W.H.O. to advise on the population problems of India and to suggest possible ways of lowering the birth rate. Dr. Abraham Stone undertook this task and, as a result of his recommendations, experimental clinics have been set up in various parts of India for the purpose of trying out the rhythm method of conception control. To this report Dr. Stone contributes an interesting preview and review of contraceptive methods and the lines on which research in contraception is being pursued. In this section also the technical and scientific aspects of family planning are discussed with admirable lucidity by Dr. Helena Wright; his research into a biological contraceptive by Dr. S. N. Sanyal; oral contraceptives by Dr. Henry de Laszlo and the clinical effectiveness of contraception by Dr. Christopher Tietze.

In a clear and succinct paper on fertility, sterility and infertility, Dr. Margaret Hadley Jackson pleads that the solution to the problem of over-population lies not in refusing to help the subfertile (whose contribution to world population is at most infinitesimal), but in successfully controlling the hyperfertile. She points out that the majority of those coming for advice because of infertility are eminently childworthy. In this section also Dr. W. T. Pommerenke discusses the so-called safe period, an admittedly unreliable but by no means

negligible method of birth control ; and Dr. Mortimer W. Rodgers the varying aspects of artificial insemination.

In the section on sterilization there is a paper by Dr. Clarence J. Gamble describing a new technique for producing tubal occlusion through fibrosis achieved by means of the intrauterine cautery which, he claims, is an out-patient procedure requiring no anæsthetic. Dr. V. N. Shirodkar, discussing the value of different operative methods of sterilizing the female, advocates one of his which has been successful in over 500 cases. It consists in excising the tube from the uterine cornu, closing the cornual opening and reinforcing the closure by stitching the cut end of the fallopian tube over it. Sterilization of the male is discussed by Dr. G. M. Phadke and sterilization from the lay volunteer point of view by Mrs. Medora S. Bass.

Dr. Kan Majima's paper on induced abortion in Japan prescribes a desperate remedy for a desperate situation. On a sober note are Professor Hans Harmsen's paper on the evil of abortion and Dr. H. S. Mehta's suggested reforms of the Indian law on abortion.

In a paper on sex education in England, Mr. R. Weatherall expresses the view that parents, teachers and spiritual leaders each have complementary parts to play. In the sex problems of adults Dr. Lena Levine stresses the value of group treatment which is now being carried on in the United States on an increasing scale.

There are five papers on various aspects of marriage counselling, all of interest and importance. Dr. Paul Popenoe reviews the subject broadly, Mr. A. Joseph Brayshaw discusses sex equality and modern marriage, and the psychological aspects of planned parenthood are considered in a joint paper by Dr. Emily H. Mudd and Dr. Donald L. Taylor. The peculiar features of marriage counselling in the United States are described by Dr. Leland Foster Wood and those of India, where arranged marriages are still the rule rather than the exception, by Dr. K. R. Masani.

At the concluding plenary session certain resolutions were passed unanimously :

- (1) That countries where National Planned Parenthood Associations exist be invited to become members of the existing International Committee on Planned Parenthood ; and that countries which have no such National Associations be invited to join as Associate members.
- (2) That the name of The International Committee on Planned Parenthood be changed to The International Planned Parenthood Federation.
- (3) That regional offices and committees of the International Planned Parenthood Federation be established as follows :
 South and South-East Asia—India
 Europe—London
 North America—New York
 and that other regional offices be established at the appropriate moment (for example, in the Eastern Mediterranean, Western Pacific and Latin American regions).
- (4) That, after the termination of the Bombay Conference, each Regional Committee appoint a Credentials Committee which will consider applications from countries within its region to join the International Planned Parenthood Federation ; and that these applications together with appropriate covering recommendations from the Credentials Committee be transmitted to the International Planned Parenthood Federation.
- (5) That there be appointed forthwith two Honorary Presidents of the International Planned Parenthood Federation, and that each region appoint as soon as possible a Director and appropriate committees.

That the further organization of the International Planned Parenthood Federation, including the drafting of a Constitution, be worked out as soon as possible by a Committee to be appointed by the two Honorary Presidents and the members of the International Committee on Planned Parenthood ; the Committee to have power to co-opt.

It is perhaps worthy of note—and certainly a sign of the times—that during the conference practical demonstrations of contraceptive techniques and the treatment of sterility were carried out on Indian women volunteers.

L. N. JACKSON,
with some additions by M. C. N. JACKSON.

POPULATION

United Nations Statistical Office.

Demographic Yearbook, 1952. 4th issue. New York, 1952. United Nations. (London, H.M.S.O.) Pp. 518. Price, paper, 45s.; cloth, 55s.

THE 1952 *Demographic Yearbook* is the fourth in a series of international compendia of population information published by the United Nations. Wherever possible, the materials presented in the earlier editions are extended to include data for 1951. The most significant change in the current volume is the addition of four statistical tables dealing with the geographic distribution of the population. The specific subjects of the tables are the distribution of the population by major civil division, such as counties in the case of Great Britain and states for the United States (no. 5); urban and rural populations, by sex (no. 6); population of agglomerations or localities classified by number of inhabitants (no. 7); and the population of each city of 100,000 or more inhabitants and of each national capital and administrative centre (no. 8). An introductory chapter offers a pithy discussion of the trend of world urbanization since 1900 and the impact of this trend on such population variables and characteristics as fertility, mortality and the sex ratio.

The only other important substantive changes in the contents of the new volume are the addition of one table giving crude divorce rates, two which present statistics of resettlement and repatriation of refugees under the auspices of the International Refugee Organization, and the elaboration of an old table covering population counts and intercensal rates of change since 1900 to include the period 1850-1900.

Because the census offices of many countries have employed different definitions of the "urban population," the current *Yearbook* provides several guides to help the reader to judge the comparability of the data in the new tables dealing with the geographic distribution of the population. The results of a test of the accuracy of the distributions of the population by age and sex are presented for the first time.

The additions to the 1952 *Demographic Yearbook* are a sign of the continuing progress made by the United Nations Statistical Office in enlarging the scope and in appraising the quality of the statistics which it collects.

ROBERT GUTMAN.*

PSYCHOLOGY

Vernon, P. E. *Personality Tests and Assessments*. London, 1953. Methuen. Pp. x + 220. Price 18s.

IN contrast with other books on the same subject, Professor Vernon's has two outstanding merits: it is eminently critical, and it does full justice to British work. Nowadays it seems generally supposed that most attempts to assess personality by scientific means are due to the ingenuity of American psychologists. In point of fact, most of the ideas embodied in the various techniques employed—questionnaires, rating scales, the study of physical signs, the observation of expressive movements, as well as the correlational methods applied in estimating their value—emanate directly or indirectly from Galton; and it was Galton's followers who chiefly made them part of the psychologist's working tools.

In contemporary psychology the word "personality" has acquired a somewhat specialized meaning. As Professor Vernon remarks, in current usage "the term refers chiefly to a man's emotional and social qualities—his sentiments, drives, and interests." The attention nowadays devoted to this aspect of the individual mind is due

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